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**Reminder 365  
User Requirement Specifications (URS)**

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# Purpose

This document records the requirements, both functional and non-functional, of the systems to be developed. It serves as a contract between the customer/user and the developers. It is also an essential input to activities in analysis, design and test.

# Problem / Purpose Statement

Currently the expiry dates for asset in store and crafts, Staff’s certificates such as work permit, safety certificates and contracts are tracked manually in spread sheet. This is not productive and sometimes they might not be renewed in time. This lapse might result in failure to service jobs and hence, there is a requirement for web application to make the tracking automatic.

# Scope

The following features will be in the scope of this project:

* Authentication and Authorization Module
* Contract Reminder Module
* Asset Reminder Module
* Staff Reminder Module
* Notifications
* Dashboard Module
* Settings Module

# Benefits

The following will be the benefits of having this system

* Higher Efficiency and Consistency in Planning & Operation
* Higher Productivity by Automating Work Processes where possible

# Glossary

|  |  |
| --- | --- |
| **Abbreviation/ Terminology** | **Definition** |
| PSA | PSA Marine (Pte) Ltd |
| DR | Disaster Recovery |
| B9 | Brani Base |
| WCB | West Coast Base |
| User | PSA Internal Staff |
| Crew | Staff working in Tug/Launch/Waterboat |
| R365 | Reminder 365 Web App |
| COE | Certificate of Endorsement |
| GOC | General Operator Certificate |
| OFO | Overseas Fleet Operations |
| SFO | Singapore Fleet Operations |

# Business Process

## Current Business Process

## New Business Process

# Functional Requirements

## Authentication and Authorization Module

This section will describe the list of features for users to access R365, and for administrative users to manage groups, roles and users in R365.

### Login and Logout

This feature shall allow R365 users to login and logout from the system based on the validity of his window active directory or LDAP account.

User can login to R365 by entering Login ID and password from R365 login page. User’s login ID and password shall be encrypted when authenticating against PSA Window Active Directory or LDAP. Upon successful login, the authorized modules (Contract, Staff and Asset) shall be made available to the user. In case user is not authorized to R365, meaningful error message need to be displayed in login page. This module shall comply with PSA’s Password Policy and PSA’s User Account and Access Management Policy.

In R365 login page, “FORGET PASSWORD?” will be displayed next to “Login” button. If user clicks on “FORGET PASSWORD?”, message “Please contact Helpdesk @ 62795459 or email helpdesk\_psa@globalpsa.com for help.” will be shown in a popup window.

R365 shall log out a user if there is no activity for a period that is to be defined by the System Administrator. R365 will allow system administrator to configure session length from database/Application layer. Upon session expiration, whenever user clicks any button on the screen or browser “back” button, user will be logged out and redirected to the login page for authentication.

Every transactional action shall be logged in the application log and database.

### Manage User

This feature shall allow Overall User Administrator to manage (create, update (including activate/inactivate), view, search, filter, sort) users in R365.

Whenever user details are submitted for creation / update, R365 shall prompt up a confirmation dialogue asking user to confirm his or her action.

Whenever a user is created / updated, R365 shall display a confirmation message saying that this user is created / update successfully or unsuccessfully. User ID shall be included in the confirmation message whenever possible.

#### **Create User**

This feature shall allow Overall User Administrator to create users in R365. Following details will be entered in the create user page:

|  |  |
| --- | --- |
| **Fields** | **Remarks** |
| User ID\* | Text (Need to be unique within R365) |
| User Name\* | Text, retrieve from Windows AD and editable. |
| Department\* | Dropdown list, select from options as configured in “department” table |
| Email\* | Valid Email ID, retrieve from Windows AD and editable. |
| Phone Number | xxxxxxxx,  Retrieve from Windows AD.  Allow digit, “-”, ”+”, and space  This field is editable. |
| Remarks | Text |
| Active | Radio Button (Yes/No) |

\*Mandatory field

Note\*\*: A user can also be assigned as overall user administrator and overall group administrator. The assignment of the role and access rights of the overall user administrator and overall group administrator can only be assigned or configured via SQL update patches.

Example of access rights configuration:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Role / Access** | **User** | | | **Group** | | | |
| **View** | **Create** | **Update** | **View** | **Create** | **Update** | **Delete** |
| Overall User Administrator | X | X | X |  |  |  |  |
| Overall Group Administrator |  |  |  | X | X | X | X |

#### **Update User**

This feature shall allow Overall User Administrator to update user details in R365. Following details will be displayed or editable in update user details page:

|  |  |  |
| --- | --- | --- |
| **Fields** | **Editable** | **Remarks** |
| User ID\* | N | Text (Need to be unique within R365) |
| User Name\* | Y | Text, retrieve from Windows AD and editable. |
| Department\* | Y | Dropdown list, select from options as configured in “department” table |
| Email\* | Y | Valid Email ID, retrieve from Windows AD and editable. |
| Phone Number | Y | xxxxxxxx,  Retrieve from Windows AD.  Allow digit, “-”, ”+”, and space  This field is editable. |
| Overall User Admin | N | Yes / No |
| Overall Group Admin | N | Yes / No |
| Remarks | Y | Text |
| Active | Y | Radio Button (Yes/No) |
| Created By | N | Text |
| Created Date | N | DD/MM/YYYY HH:MM:SS |
| Last Modified By | N | Text |
| Last Modified Date | N | DD/MM/YYYY HH:MM:SS |

\*Mandatory field

**Activate / Inactivate User**

In update user page, a user can be activated / inactivated through “Active” radio button. When a user is inactivated, a message mentioning his or her user group and role information shall be displayed in a popup message asking user to confirm his or her action. A user cannot be inactivated if he is a key role (e.g. Overall Group / User Administrator, Group Administrator of an active user group, Officer-In-Charge of an active contract, reviewer of an active contract, etc...)

|  |  |  |
| --- | --- | --- |
| **Example** | **Message** | **Remarks** |
| To inactivate a user who is a Group Administrator of a user group. | “This user cannot be inactivated because he/she is the Group Administrator of FMD-OPS-EQUIP. [OK]”. Contact IT Support ([PSAM\_SUPPORT@psa.com.sg](mailto:PSAM_SUPPORT@psa.com.sg)) to inactivate this user. | User cannot be inactivated. Redirect back to update user page after clicking [OK]. |
| To inactivate a user who is a User in FMD-OPS-EQUIP, Read Only User in FMD-OPS-STAFF. | “This user is User in FMD-OPS-EQUIP, Read Only User in FMD-OPS-STAFF. Are you sure to inactivate this user? [Yes] [No]” | If clicks “Yes”, this user will be inactivated and removed from groups. |

#### **View User Details**

This feature shall allow Overall User Administrator to view user details in R365. Following fields will be shown in user details page:

|  |  |
| --- | --- |
| **Fields** | **Remarks** |
| User ID | Text |
| User Name | Text |
| Department | Text |
| Email | Text |
| Phone Number | Text |
| Overall User Admin | Yes / No |
| Overall Group Admin | Yes / No |
| Remarks | Text |
| Active | Yes/No |
| Created By | Text |
| Created Date | DD/MM/YYYY HH:MM:SS |
| Last Modified By | Text |
| Last Modified Date | DD/MM/YYYY HH:MM:SS |

#### **View My Profile Details**

This feature shall allow authorized user to view his or her user details in user profile page. Following fields will be shown:

|  |  |
| --- | --- |
| **Fields** | **Remarks** |
| User ID | Text |
| User Name | Text |
| Department | Text |
| Email | Text |
| Phone Number | Text |
| Group & Role | Display User Group(s) & Role(s) information if any. |
| Overall User Admin | If is “Overall User Admin”, display “Yes”. Else, hide this field. |
| Overall Group Admin | If is “Overall Group Admin”, display “Yes”. Else, hide this field. |
| Remarks | Text |
| Created By | Text |
| Created Date | DD/MM/YYYY HH:MM:SS |
| Last Modified By | Text |
| Last Modified Date | DD/MM/YYYY HH:MM:SS |

#### **Search User**

This feature shall allow Overall User Administrator to search users via any keywords in user details. Search via keyword function shall be enhanced by “Search as you type” feature.

|  |  |
| --- | --- |
| * + Search Key | * + Remarks |
| * + User ID | * + Search as you type against all User IDs in R365   + Support wildcard search |
| * + User Name | * + Search as you type against all User Names in R365   + Support wildcard search |
| * + Department | * + Dropdown list, select from options as configured in “department” table |
| * + Email | * + Search as you type against all Emails in R365   + Support wildcard search |
| * + Mobile Number | * + Search as you type against all Mobile Numbers in R365   + Support wildcard search |
| * + Overall Group Admin | * + Dropdown.   + [Yes|No|All(default)] |
| * + Overall User Admin | * + Dropdown.   + [Yes|No|All(default)] |
| * + Active | * + Dropdown.   + [Yes(default)|No|All] |

The following default fields will be shown search user result list

* + User ID
  + User Name
  + Department
  + Email
  + Mobile Number
  + Overall Group Admin
  + Overall User Admin
  + Active
  + Action

#### **Sort User**

This feature shall allow Overall User Administrator to sort user search result by any column in the result list.

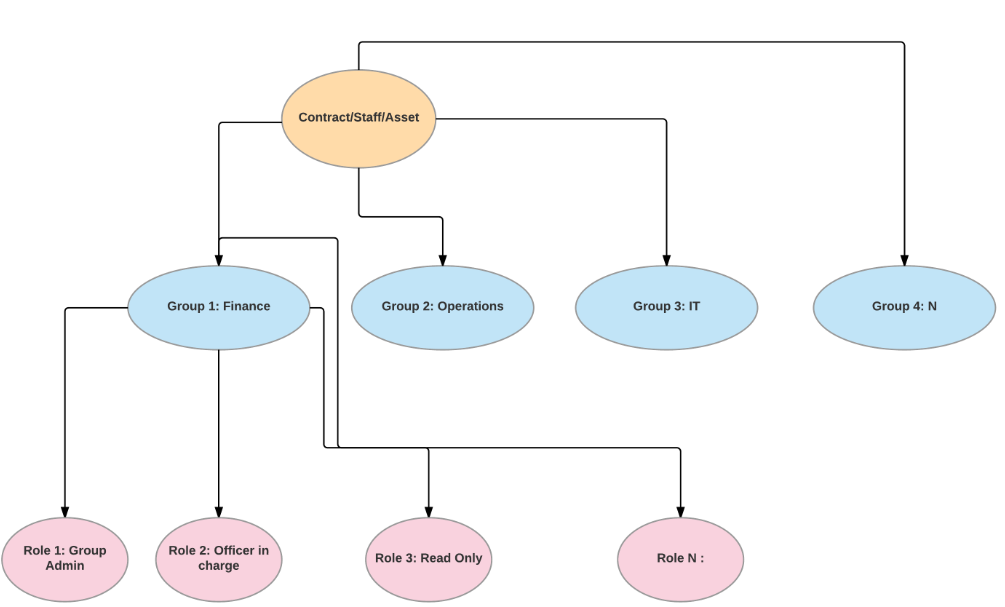
### Manage User Group

This feature shall allow Overall Group Administrator to manage (create, update, delete, view, search via keywords, filter, sort) user groups and corresponding user roles such as “Group Administrator”, “Officer-in-Charge”, “Read-only User”, “User” and etc. for that particular group. The search via keyword function shall be enhanced by “search as you type” feature.

Whenever User Group details are submitted for creation / update / deletion, R365 shall prompt up a confirmation dialogue asking user to confirm his or her action.

Whenever a group is created / updated / deleted, R365 shall display a confirmation message saying that this group is created / updated / deleted successfully or unsuccessfully. Group Name shall be included in the confirmation message whenever possible.

User Group and role will follow the following hierarchy: -



* + One group may have more than one role. However, a user can have only one role in a same user group. E.g.
    - A user can be either “Administrator” or “Officer-In-Charge” in FMD-OPS-STAFF group.
    - A user can be “Officer-In-Charge” in FMD-OPS-STAFF, and “Viewer” in FMD-OPS-EQUIP group.
  + One reminder module may have multiple groups. However, one group can belong to only one reminder module.

#### **Create User Group**

This feature shall allow the Overall Group Administrator to create user groups in R365 for users to access reminders in their groups. When Overall Group Administrator creates a user group, he can create roles for the group, and assign user(s) as Group Administrator for the group.

Following details will be entered to create a User Group:

|  |  |
| --- | --- |
| **Fields to be entered** | **Remarks** |
| Reminder Module\* | Dropdown List(Contract, Asset and Staff) |
| Group Name\* | Text (Need to be unique within Individual Reminder Group)  Refer to Appendix “Sample User Group” for sample group names. |
| Group Description | Textbox |
| Role(s)\* | Group Administrator is a default role.  Other role(s) can be created in the group.  Access rights of group roles are configurable.   |  |  |  | | --- | --- | --- | | **Access Right\*** | **Format** | **Remarks** | | Search Record | Checkbox | Access to search records via advanced search and filters ( e.g. filters in dashboard, expiry calendars, asset summaries, etc) | | Download Record | Checkbox | Access to download search results into excel file | | View Record | Checkbox | Access to view record details in view page | | Create Record | Checkbox | Access to create a new record | | Update Record | Checkbox | Access to update a record details | | Delete Record | Checkbox | Access to delete a record | | Verify Contract | Checkbox | Access to verify contract.  Display “Verify Contract” only when contract reminder module is selected. | | Notification TO | Checkbox | Access to receive email notification as TO recipient | | Notification CC | Checkbox | Access to receive email notification as CC recipient | | Action | Add, update and delete buttons | |   If a role has no access rights, then user with this role will only be able to access Dashboard. |
| Group Administrator\* | Assign at least one user as Group Administrator. |
| Active\* | Dropdown List or Radio Button(Yes/No) |

\*Mandatory field

Group Administrator will be a default role for any group. By default, a Group Administrator has all access rights except for “Notification CC”. In order to assign a user as Group Administrator, Overall Group Administrator will firstly search the user, and then assign him or her as Group Administrator. Search as you type feature is required for searching user.

Example for Role and Access Rights:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Role / Access | Search | Download | View | Create | Update | Delete | Verify | TO | CC |
| Group Administrator | X | X | X | X | X | X | X | X |  |
| Officer in Charge | X | X | X | X | X | X | X | X |  |
| Read-only User | X |  | X |  |  |  |  |  | X |
| User | X |  | X | X | X | X | X |  | X |

#### **View User Group**

This feature shall allow Overall Group Administrator to view user group details in R365. Following details will be displayed in view group details page:

|  |  |
| --- | --- |
| **Fields** | **Remarks** |
| Reminder Module | Text |
| Group Name | Text |
| Group Description | Text |
| Role(s) | |  |  |  | | --- | --- | --- | | **Access Right\*** | **Format** | **Remarks** | | Search Record | Checkbox | Access to search records via advanced search and filters ( e.g. filters in dashboard, expiry calendars, asset summaries, etc) | | Download Record | Checkbox | Access to download search results into excel file | | View Record | Checkbox | Access to view record details in view page | | Create Record | Checkbox | Access to create a new record | | Update Record | Checkbox | Access to update a record details | | Delete Record | Checkbox | Access to delete a record | | Verify Contract | Checkbox | Access to verify contract.  Display “Verify Contract” only when contract reminder module is selected. | | Notification TO | Checkbox | Access to receive email notification as TO recipient | | Notification CC | Checkbox | Access to receive email notification as CC recipient | |
| Group Administrator | Text |
| Active | Yes / No |
| Created By | Text |
| Created Date | DD/MM/YYYY HH:MM:SS |
| Last Modified | Text |
| Last Modified Date | DD/MM/YYYY HH:MM:SS |

#### **Update User Group**

This feature shall allow Overall Group Administrator to update User Group Details. Following details will be shown or editable in update user group page:

|  |  |  |
| --- | --- | --- |
| **Fields** | **Editable** | **Remarks** |
| Reminder Module | N | Text |
| Group Name\* | Y | Text(Need to be unique within Individual Reminder Group) |
| Group Description | Y | Text |
| Role(s) | Y | Group Administrator is a default role. Other role(s) can be created / updated / deleted in the group.  Access rights of group roles are configurable.   |  |  |  | | --- | --- | --- | | **Access Right\*** | **Format** | **Remarks** | | Search Record | Checkbox | Access to search records via advanced search and filters ( e.g. filters in dashboard, expiry calendars, asset summaries, etc) | | Download Record | Checkbox | Access to download search results into excel file | | View Record | Checkbox | Access to view record details in view page | | Create Record | Checkbox | Access to create a new record | | Update Record | Checkbox | Access to update a record details | | Delete Record | Checkbox | Access to delete a record | | Verify Contract | Checkbox | Access to verify contract.  Display “Verify Contract” only when contract reminder module is selected. | | Notification TO | Checkbox | Access to receive email notification as TO recipient | | Notification CC | Checkbox | Access to receive email notification as CC recipient | | Action | Add, update and delete buttons | |   If a role has no access rights, then user with this role will only be able to access Dashboard. |
| Group Administrator\* | Y | Assign at least one user as Group Administrator. |
| Active | Y | Yes / No |
| Created By | N | Text |
| Created Date | N | DD/MM/YYYY HH:MM:SS |
| Last Modified | N | Text |
| Last Modified Date | N | DD/MM/YYYY HH:MM:SS |

\*Mandatory field

**Activate / Inactivate User Group**

In the update user group page, a user group can be activated / inactivated through “Active” radio button. A user group cannot be inactivated if there are active reminders inside the group.

#### **Delete User Group**

This feature shall allow Overall Group Administrator to delete a User Group from R365. A user group can only be deleted when there are no reminder records inside this user group.

#### **Search User Group**

This feature shall allow Overall Group Administrator to search user groups via any keywords in User Group details. Search via keywords function will be enhanced by “Search as you type” feature.

|  |  |
| --- | --- |
| * + Search Key | * + Remarks |
| * + Reminder Module | * + Dropdown [Contract|Asset|Staff|All(default)] |
| * + Group Name | * + Search as you type against all Group Names in R365   + Support wildcard search |
| * + Active | * + Dropdown. [Yes(default)|No|All] |

#### **Sort User Group**

This feature shall allow Overall Group Administrator to sort User Group search result by any column in the result list.

### Manage My User Group

This feature shall allow Group Administrator of that particular group to manage (view group details, manage user’s role in the group) his or her User Group in R365.

Whenever group details are submitted for update, R365 shall prompt up a confirmation dialogue asking user to confirm his or her action.

Whenever group details are updated, R365 shall display a confirmation message saying group details are updated successfully or unsuccessfully. Group name shall be included in the confirmation message whenever possible.

#### **View My Group Details**

This feature shall allow Group Administrator to view the Group Details of his or her own user group.

Following details will be shown in the view my group details page.

|  |  |
| --- | --- |
| **Fields** | **Remarks** |
| Reminder Module | Dropdown list  Dropdown options are all the reminder modules available in the login user’s (Group Administrator) group(s) |
| User Group | Dropdown list  Dropdown options are login user’s (Group Administrator) group(s) |
| Group Description | Text  Auto populated according to selected user group. |
| Users, Roles | A list of users in the group, and corresponding user roles  User ID, User Name, and Email should be shown in the user list. |

#### **Manage Users and Roles in My Group**

This feature shall allow Group Administrator to manage users and user’s role in his or her user group.

1. Assign user to a role in the group

In assign role page, group administrator shall be able to search active users in R365 via keywords of user details, and then select and assign user to a role in the group. A user can be assigned to only one role in a user group. Search via keyword function shall be enhanced by “Search as you type” feature.

1. Remove user from the group

In group details page, group administrator shall be able to remove user from the group.

1. Search user in the group

In group details page, group administrator shall be able to search users in the group via keywords of user details. Search via keyword function shall be enhanced by “Search as you type” feature.

1. Sort user in the group

In group details page, group administrator shall be able to sort users by any column in the user list.

1. View users in the group

Group Administrator shall be able view the list of users within his or her group(s)

## Contract Reminder Module

This module shall allow authorized users for this module to create, update, delete, view, search via keyword(s), download, filter, and sort contracts under their own group. Contracts in this case can include procurement contracts, software license subscription and etc. The search via keyword function shall be enhanced by “search as you type” feature. There are 3 main groups of users for this module, namely FMD, Procurement and IT. Each group of users has their own contract records to monitor and they cannot manage staff reminder of the other groups unless being granted the necessary roles of that group. For this module, there must be a maker-checker workflow concept to prevent inaccurate data entry and hence leading to inaccurate reminder alerts.

Whenever a contract is submitted for creation / update / deletion / verification / rejection, R365 shall prompt up a confirmation dialogue asking user to confirm his or her action.

Whenever a contract is created / updated / deleted / verified / rejected, R365 shall display a confirmation message saying that this contract is created / updated / deleted / verified / rejected successfully or unsuccessfully. Contract Reference Number shall be included in the confirmation message whenever possible.

### Create Contract

This feature shall allow authorized user to create contract in his or her user group. Following details will be entered to create new contract.

|  |  |
| --- | --- |
| **Fields to be entered** | **Remarks** |
| Contract Details | |
| User Group | Retrieve from login user's group.  Select from dropdown list if user has more than one contract groups. Display group description next to User Group field. |
| Contract Title\* | Text area |
| Contract Reference Number\* | Text |
| BA / PO number\* | Number (0 decimal place) |
| Supplier\* | Text |
| Contract Value Currency\* | Text (3 letters) |
| Contract Value\* | Number (2 decimal place) |
| Performance Bond submission\* | Dropdown list: Y / N / N.A. |
| Start Date\* | Format: DD/MM/YYYY |
| Expiry Date\* | Format: DD/MM/YYYY |
| Active | Radio Button: Yes(Default)/No |
| Uploaded Files | Allow user to upload and remove files (excel, pdf, word etc.) |
| First Reminder Date\* | Format: DD/MM/YYYY  Auto populated according to default configuration in settings module.  These fields are editable. |
| Second Reminder Date |
| Third Reminder Date |
| Officer in Charge\* | Dropdown list.  Dropdown options are users in the selected user group |
| TO List | TO List contains semicolon separated emails of ‘Officer in Charge’ above, and the users who have ‘Notification TO’ access rights in the user group.  This field is non-editable. |
| CC List | CC List contains semicolon separated emails of the users who have ‘Notification CC’ access rights in the user group.  This field is non-editable. |
| Additional CC List | Text.  Email(s) separated by semicolon.  (User may key in additional emails (of active users) as cc recipients)  Support search as you type feature when key in an email.  (Search from emails of active Users) |
| Reviewer List\* | Dropdown list, select one or two reviewers.  Dropdown options are users who have “Verify Contract” access in the selected user group. |
| Option year | |
| Option year exercise date | Format: DD/MM/YYYY  Default value: NIL |
| Insurance |  |
| Public Liability policy expiry date | Format: DD/MM/YYYY  Default value: NIL |
| Workman Compensation policy expiry date | Format: DD/MM/YYYY  Default value: NIL |
| Hull & Marine expiry date | Format: DD/MM/YYYY  Default value: NIL |
| Savings | |
| Savings currency | Text (3 letters) |
| Savings | Number (2 decimal place) |

\*Mandatory field

Other fields might be identified and need to be captured for contract details in future without affecting the existing workflow.

After user submits the new contract, this contract will go through verification process (Maker-checker workflow) before it is activated for view by other users.

### View Contract

This feature shall allow authorized user to view contract details in his or her user group. All the fields mentioned in “Create Contract” section will be viewable. Following fields will also be displayed.

|  |  |
| --- | --- |
| **Fields** | **Remarks** |
| Uploaded Files | Allow user to **download** uploaded files. |
| Created By | Text |
| Created Date | DD/MM/YYYY HH:MM:SS |
| Last Modified | Text |
| Last Modified Date | DD/MM/YYYY HH:MM:SS |
| Status | N.A. / Expiring / Expired  (\*N.A. means out of notification period. Or use other meaningful name for “N.A.”) |

### Update Contract

This feature shall allow authorized user to update contract details in his or her user group. All the fields (expect for User Group) mentioned in “Create Contract” section will be editable. Following fields will also be displayed.

|  |  |
| --- | --- |
| **Fields** | **Remarks** |
| Uploaded Files | Allow user to upload, download, and remove files. |
| Created By | Text |
| Created Date | DD/MM/YYYY HH:MM:SS |
| Last Modified | Text |
| Last Modified Date | DD/MM/YYYY HH:MM:SS |

After user submits the updated contract, this contract will go through verification process (Maker-checker workflow) before the updated details are activated for view by other users.

However, if only “Reviewer List” field is updated, contract details will be directly updated without going through verification process.

### Delete Contract

This feature shall allow authorized user to delete contract in his or her user group.

After user submits the contract deletion, this contract will go through verification process (Maker-checker workflow) before it is deleted from R365.

### Renew Contract

This feature is provided for users to create new contract using existing contract details in R365. User can select any existing contract and click renew button to renew the contract. After clicking renew button, user will be redirected to create contract page. Following details will be copied from the original contract.

|  |  |
| --- | --- |
| **Fields to copied from original contracts** | |
| Contract Details | Option year |
| User Group | Option year exercise date |
| Contract Title | Insurance |
| BA / PO number | Public Liability policy expiry date |
| Supplier | Workman Compensation policy expiry date |
| Contract Value Currency | Hull & Marine expiry date |
| Contract Value | Savings |
| Performance Bond submission | Savings currency |
| Start date | Savings |
| Expiry date |  |
| Reminder Status |  |
| Officer in Charge |  |
| Cc list |  |
| Reviewer List |  |

TO List and CC List will be auto populated according to group role settings. Record will be “Active” by Default.

After user submits the renewal request, system will prompt user to delete, inactivate, or do nothing to the original contract. Relevant verification process (Maker-checker flow) for create, update or delete contract shall apply.

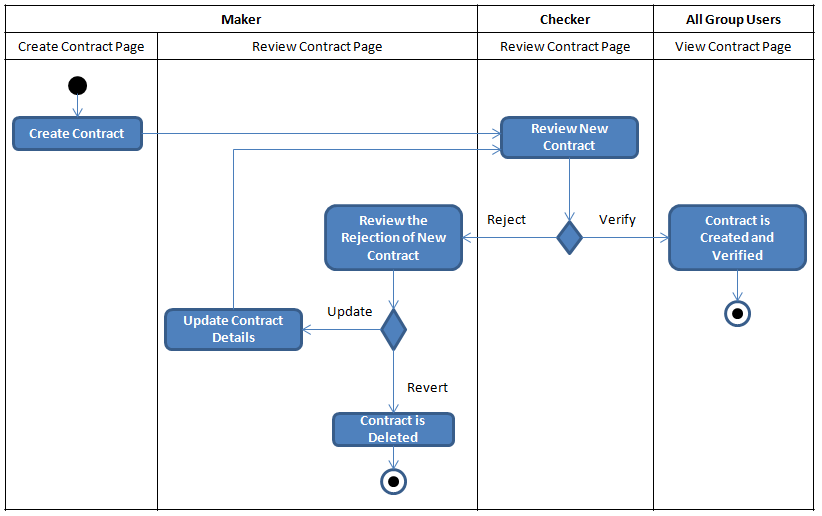
### Maker-checker Workflow

This section describes the maker-checker workflow to verify a newly created, updated, or deleted contract to prevent inaccurate data entry.

If a contract is created, updated or deleted, and not verified yet, a message mentioning the maker and action time will be displayed in review contract page. E.g. “This contract is created by Harry Lim on 12/10/2017 13:45. Please verify.”

If a contract is rejected, a message mentioning the checker and action time will be displayed in review contract page. E.g. “Creation of this contract is rejected by Jerry Wong on 13/10/2017 14:01. Please review.” Rejection Remarks shall be displayed in the review contract page.

#### Maker Checker Workflow for Add Contract



1. A maker (a user in the user group) creates a new contract record from Add Contract page.
   * Only the contract maker and checker (reviewer) will be able to view this contract from review contract page.
   * An email will be sent TO checker(s) and CC maker to notify that a new contract has been created and pending for verification.
2. Checker login R365 to verify or reject the new contract from review contract page.
   * If checker verifies the new contract
     + All users in this user group will be able to view this contract from view contract page.
     + An email will be sent TO maker and CC checker(s) to notify that this contract has been verified.

(End of Maker Checker Workflow)

* + If checker rejects the new contract
    - Checker enters “Remarks” to state rejection reason.
    - Only the contract maker and checker will be able to view this contract from review contract page.
    - An email will be sent TO maker and CC checker(s) to notify that this contract has been rejected.

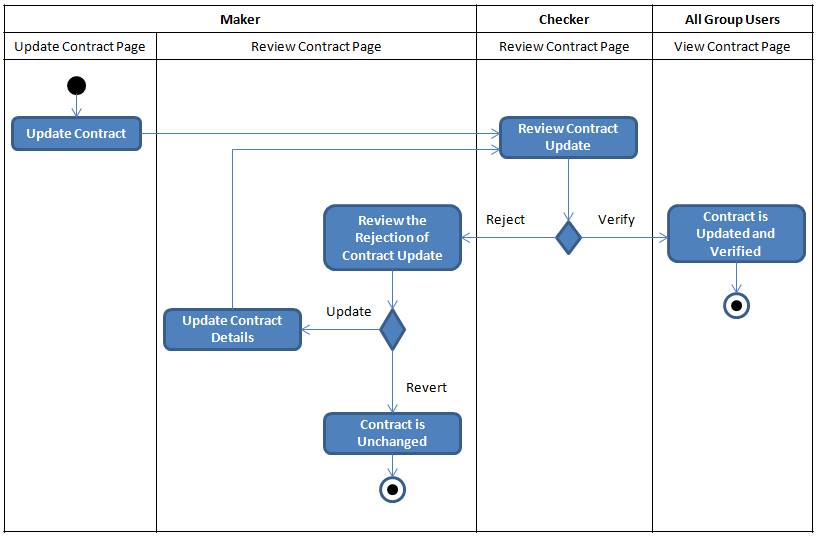
1. If the new contract is rejected, maker will login R365 to review rejection remarks, and update or delete the new contract from review contract page.
   * If maker deletes the rejected contract
     + This contract will be deleted from R365

(End of Maker Checker Workflow)

* + If maker updates contract details and re-submit for verification
    - Only the contract maker and reviewer will be able to view this contract in review contract page.
    - An email will be sent TO checker(s) and CC maker to notify that a new contract has been created and pending for verification.

1. Continue at Step 2)

#### Maker Checker Workflow for Update Contract



1. A maker updates details of an contract
   * Only the contract maker and checker will be able to view the updated contract details from review contract page.
   * All users in the group will still be able to view the original contract details from view contract page.
   * An email will be sent TO checker(s) and CC maker to notify that a contract has been updated and pending for verification.
2. Checker login R365 to verify or reject the contract update from review contract page.
   * If checker verifies the contract update
     + Original contract details will be overwritten by the updated contract details.
     + All users in this user group will be able to view updated contract details from view contract page.
     + An email will be sent TO maker and CC checker(s) to notify that this contract update has been verified.

(End of Maker Checker Workflow)

* + If checker rejects the contract update
    - Checker enters “Remarks” to state rejection reason.
    - Only the contract maker and checker will be able to view the updated contract details from review contract page.
    - All users in the group will still be able to view the original contract details from view contract page.
    - An email will be sent TO maker and CC checker(s) to notify that this contract update has been rejected.

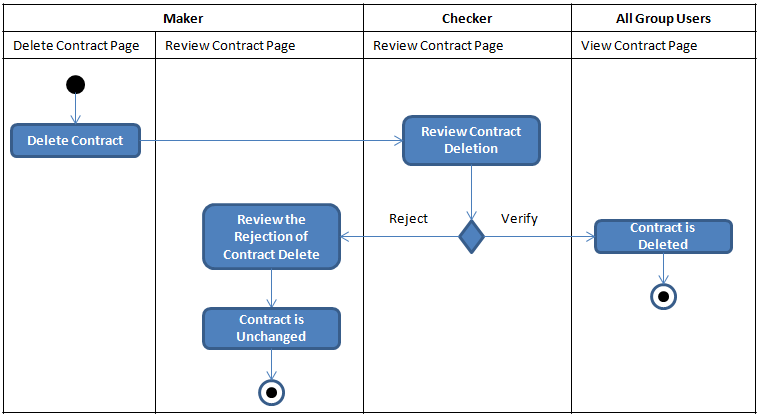
1. If the contract update is rejected, maker will login R365 to review rejection remarks, and update or revert the changes from review contract page
   * If maker reverts the changes
     + Contract update will be reverted.
     + All users in the group will be able to view the original contract details from view contract page.

(End of Maker Checker Workflow)

* + If maker updates contract details and re-submit for verification again
    - Only the contract maker and checker will be able to view the updated contract details from review contract page.
    - All users in the group will still be able to view the original contract details from view contract page.
    - An email will be sent TO checker(s) and CC maker to notify that a contract has been updated and pending for verification.

1. Continue at Step 2)

#### Maker Checker Workflow for Delete Contract



1. A maker deletes a contract
   * Only the contract maker and checker will be able to view the deleted contract in review contract page.
   * All users in the group will still be able to view the original contract details in view contract page.
   * An email will be sent TO checker(s) and CC maker to notify that a contract has been deleted and pending for verification.
2. Checker login R365 to verify or reject the contract deletion from review contract page.
   * If checker verifies the contract deletion
     + This contract will be deleted from R365
     + An email will be sent TO maker and CC checker(s) to notify that this contract deletion has been verified.

(End of Maker Checker Workflow)

* + If checker rejects the contract deletion
    - Checker enters “Remarks” to state rejection reason.
    - Only the contract maker and checker will be able to view the deleted contract from review contract page.
    - All users in the group will still be able to view the original contract details from view contract page.
  + An email will be sent TO maker and CC checker(s) to notify that deletion of this contract has been rejected.

1. If the contract deletion is rejected, maker login R365 to review rejection remarks, and revert the contract deletion from review contract page.
   * All users in the group will still be able to view the original contract details from view contract page.

(End of Maker Checker Workflow)

#### Maker Checker Workflow Status Table

|  |  |
| --- | --- |
| **Status** | **Description** |
| New | When contract is created and pending verification |
| Verified | When contract is verified by checker |
| Rejected | When contract is rejected by checker |
| Deleted | When contract is deleted and pending verification |
| Updated | When contract is updated and pending verification |

### View Expiry Calendar

In contract reminder home page, a calendar of current month will be displayed on the top of the page. Expiry date(s) of all the active contract(s) in the login user’s group(s) will be highlighted in red on the calendar. If user clicks a date on expiry calendar, active contracts expiring on that date will be shown in search result.

### View Contract Summary

In contract reminder home page, following summary statistics of contract reminders under login user’s group(s) will be shown. If user clicks the summary box, corresponding contract list will be shown in search results.

1. No. of Contracts Expired
   * Display the number of active contracts that already expired.
2. No. of Contracts Expiring this Month
   * Display the number of active contracts expiring this month.
3. No. of Contracts Expiring Next Month
   * Display the number of active contracts expiring next month.
4. No. of Contracts Need Verification
   * Display the number of active contracts that need verification

### Search Contract

This feature shall allow authorized user to view and search the contracts of his or her user group(s) via any field displayed in the contract list. The search via keywords function will be enhanced by search as you type feature (results fulfilling searching key will be shown in dropdown list).

|  |  |
| --- | --- |
| * + Search Key | * + Remarks |
| * + Contract Title | * + Search as you type against contracts’ titles available in user’s group(s)   + Support wildcard search |
| * + Contract Reference Number | * + Search as you type against contracts’ reference numbers in user’s group(s)   + Support wildcard search |
| * + Start Date From | * + Select from calendar |
| * + Start Date To | * + Select from calendar |
| * + Expiry Date From | * + Select from calendar |
| * + Expiry Date To | * + Select from calendar |
| * + Supplier | * + Search as you type against contracts’ suppliers in user’s group(s)   + Support wildcard search |
| * + Officer-In-Charge | * + Search as you type against contracts’ Officer-In-Charge in user’s group(s)   + Support wildcard search |
| * + User Group | * + Dropdown.   + Select from a list of user’s group(s) |
| * + Active | * + Dropdown.   + [Yes|No|All] |
| * + Status | * + Dropdown.   + [Expiring|Expired|Out of Notification Period |All] |

The following default fields will be shown in list of contracts’ reminders

* + Contract Title
  + Contract Reference Number
  + Start Date
  + Expiry Date
  + Reminder#
  + Supplier
  + Officer in Charge
  + User Group
  + Status

However, there will be an option for user to choose additional fields to be displayed, or hide existing fields in the contract list.

If a grid or table cell is too small to display the full content, only partial information with “…” will be shown. However, full content will be displayed in a tooltip whenever user mouse over the table cell.

If column(s) has been sorted, the search result should displayed according to the sorted column(s)

By default, 20 contracts will be shown in one search result page. There will be an option for user to configure the number of contracts to be shown in one result page.

Color code shall be displayed properly on individual record to indicate contract status as Expired (red), Expiring (orange) or Outside Reminder Notice Periods (green)

### Sort Contract

This feature shall allow authorized user to sort contracts in search result by any column in the result list. By default, contracts will be sorted by expiry date in descending order.

### Download Contract

This feature shall allow authorized user to download contract search results in to an excel sheet. All relevant and meaningful information of the contract details will be downloaded.

## Asset Reminder Module

This module shall allow authorized users for this module to create, update, delete, view, search via keyword(s), download, filter, and sort asset records under their own group. The search via keyword function shall be enhanced by “search as you type” feature. There are 2 main groups of users for this module, namely FMD-Operation and FMD-Technical service. Each group of users has their own asset to monitor and they cannot manage asset of the other groups unless being granted the necessary roles of that group.

Whenever an asset reminder is submitted for creation / update / deletion, R365 shall prompt up a confirmation dialogue asking user to confirm his or her action.

Whenever an asset reminder is created / updated / deleted, R365 shall display a confirmation message saying that this asset is created / updated / deleted successfully or unsuccessfully. Asset Location, Asset Type, Asset Sub Type and Asset ID shall be included in the confirmation message whenever possible.

E.g.

* “Asset has been created successfully. (TG25|Statutory Certificate|Load Line Cert|)”
* “Asset has been updated successfully. (TS Store|Webbing Sling|5Ton 3M|LGUH8031825)”

### Create Asset

This feature shall allow authorized user to create asset in his or her user group. Following details will be entered to create new asset:

|  |  |
| --- | --- |
| **Fields to be entered** | **Remarks** |
| User Group\* | Retrieve from login user's group.  Select from dropdown list if user has more than one asset groups Display group description next to User Group field. |
| Location\* | Search as you type, results fulfilling searching key will be shown in dropdown list Available locations are managed by settings module |
| Asset Type\* | Dropdown list  Available asset types are managed by settings module. |
| Asset Sub Type\* | Dropdown list Available asset sub types are managed by settings module Asset sub types will be filtered according to the selected asset type |
| Asset ID | Text |
| Description | Textbox, keyed in by user. |
| Uploaded Files | Allow user to upload and remove files (excel, pdf, word etc.) |
| Issue Date | DD/MM/YYYY |
| Expiry Date\* | DD/MM/YYYY |
| First Reminder Date\* | Format: DD/MM/YYYY  Auto populated according to the default setting of selected asset sub type in settings module.  This field is editable |
| Second Reminder Date |
| Third Reminder Date |
| TO List | TO List contains semicolon separated emails of the users who have ‘Notification TO’ access rights in the user group.  This field is non-editable. |
| CC List | CC List contains semicolon separated emails of the users who have ‘Notification CC’ access rights in the user group.  This field is non-editable. |
| Additional CC List | Text.  Email(s) separated by semicolon  (User may key in additional emails (of active users) as cc recipients)  Support search as you type feature when key in an email.  (Search from emails of active Users) |
| Remarks | Text |
| Active\* | Radio Button: Yes(Default)/No |

\*Mandatory field

Other fields might be identified and need to be captured for asset reminder details in future without affecting the existing workflow.

### View Asset

This feature shall allow authorized user to view asset in his or her user group. All the fields mentioned in “Create Asset” section shall be viewable. Following fields shall also be displayed.

|  |  |
| --- | --- |
| **Fields to be entered** | **Remarks** |
| Uploaded Files | Allow user to **download** the list of uploaded files. |
| Created By | Text |
| Created Date | DD/MM/YYYY HH:MM:SS |
| Last Modified | Text |
| Last Modified Date | DD/MM/YYYY HH:MM:SS |
| Status | N.A. / Expiring / Expired  (\*N.A. means out of notification period. Or use other meaningful name for “N.A.”) |

### Update Asset

This feature shall allow authorized user to update asset details in his or her user group. All the fields (expect for User Group) mentioned in “Create Asset” section will be editable. Following fields will also be displayed.

|  |  |
| --- | --- |
| **Fields to be entered** | **Remarks** |
| Uploaded Files | Allow user to upload, download, and remove files. |
| Created By | Text |
| Created Date | DD/MM/YYYY HH:MM:SS |
| Last Modified | Text |
| Last Modified Date | DD/MM/YYYY HH:MM:SS |

### Delete Asset

This feature shall allow authorized user to delete asset reminder in his or her user group.

### Renew Asset

This feature shall allow authorized user to create new asset using existing asset details in R365. User can select any existing asset and click renew button to renew the asset. After clicking renew button, user will be redirected to create asset page. Following details will be copied from the original asset.

|  |
| --- |
| **Fields to copied from original asset** |
| User Group |
| Location |
| Asset Type |
| Asset Sub Type |
| Asset ID |
| Description |
| Additional CC list |
| Remarks |

TO List and CC List will be auto populated according to group role settings. Record will be “Active” by Default.

After user submitted the renewal request, system will prompt user to delete, inactivate, or do nothing to the original asset.

### View Expiry Calendar

In asset reminder home page, a calendar of current month will be displayed on the top of the page. Expiry date(s) of all the active asset(s) in the login user’s group(s) will be highlighted in red on the calendar. If user clicks a date on expiry calendar, active assets expiring on that date will be shown in search result.

### View Asset Summary

In asset reminder home page, following summary statistics of asset under login user’s group(s) will be shown. If user clicks the summary box, corresponding asset list will be shown in search results.

1. No. of Asset Expired
   * Display the number of active assets that already expired.
2. No. of Asset Expiring this Month
   * Display the number of active assets expiring this month.
3. No. of Asset Expiring Next Month
   * Display the number of active assets expiring next month.

### Search Asset

This feature shall allow authorized user to search asset reminder of his or her user group(s) via any field displayed in the asset list. The search via keywords function will be enhanced by search as you type feature (results fulfilling searching key will be shown in dropdown list).

|  |  |
| --- | --- |
| * + Search Key | * + Remarks |
| * + Location | * + Search as you type against all locations   + Support wildcard search |
| * + Asset Type | * + Search as you type against all asset types |
| * + Asset Sub Type | * + Search as you type against all asset sub types   + (If user selected asset type, asset sub types should be filtered by selected Asset Type).   + Support wildcard search |
| * + Asset ID | * + Search as you type against Asset IDs available in user’s group(s)   + Support wildcard search |
| * + Expiry Date From | * + Select from calendar |
| * + Expiry Date To | * + Select from calendar |
| * + User Group | * + Dropdown.   + Select from a list of user’s group(s) |
| * + Active | * + Dropdown.   + [Yes|No|All] |
| * + Status | * + Dropdown.   + [Expiring|Expired|Out of Notification Period |All] |

The asset list will be grouped by “Location”. For each “location”, the following default fields shall be shown:

* + Asset Type
  + Asset Sub Type
  + Asset ID
  + Expiry Date
  + Reminder
  + User Group
  + Status

However, there will be an option for user to choose additional fields to be displayed, or hide existing fields in the asset list.

If a grid or table cell is too small to display the full content, only partial information will be shown. However, full content will be displayed in a tooltip whenever user mouse over on that field.

If column(s) has been sorted, the search result should displayed according to the sorted column(s)

By default, 20 assets will be shown in one search result page. There will be an option for user to configure the number of asset to be shown in one result page.

Color code shall be displayed properly on individual record to indicate asset status as Expired (red), Expiring (orange) or Outside Reminder Notice Periods (green)

### Sort Asset

This feature shall allow authorized user to sort asset in search result by any column in the result list. By default, asset will be sorted by expiry date in descending order within their “location” group.

### Download Asset

This feature shall allow authorized user to download asset search results in to an excel sheet. All relevant and meaningful information of the asset details will be downloaded.

## Staff Reminder Module

This module shall allow authorized users for this module to create, update, delete, view, search via keyword(s), download, filter, and sort staff monitor records under their own group. The search via keyword function shall be enhanced by “search as you type” feature. There are 3 main groups of users for this module, namely HR, FMD-Operation and FMD-Technical Service. Each group of users has their own staff monitor records to monitor and they cannot manage staff reminder of the other groups unless being granted the necessary roles of that group.

Whenever a staff monitor record is submitted or saved for creation / update / deletion, R365 shall prompt up a confirmation dialogue asking user to confirm his action.

Whenever a staff monitor record is created / updated / deleted, R365 shall display a confirmation message saying that this staff monitor record is created / updated / deleted successfully or unsuccessfully. Staff monitor record Reference Number shall be included in the confirmation message whenever possible.

### Create Staff Monitor Record

This feature shall allow authorized user to create staff monitor record in his or her user group. One staff may have multiple records to be monitored by R365 (e.g. EP, Safety Orientation Course, etc...). Following details will be entered to create new staff monitor record: -

|  |  |
| --- | --- |
| **Fields to be entered** | **Remarks** |
| User Group\* | Retrieve from login user's group.  Select from dropdown list if user has more than one staff groups Display group description next to User Group field. |
| NRIC/FIN\* | Text  When user enters NRIC/FIN and hits enter key, all other staff particulars will be auto populated according to NRIC/FIN.  If staff is not found, meaningful error message shall be displayed.  NRIC/FIN must be encrypted in database.  NRIC/FIN is unique in R365 |
| Staff Code\* | Search as you type  E.g. If user searches “h”, “L” or “Hl”, etc., “Harry Lim (HL)” will be shown in search as you type dropdown list.  When user enters Staff Code and hits enter key, or clicks “Harry Lim (HL)”, all other staff particulars will be auto populated according to Staff Code.  If staff is not found, meaningful error message shall be displayed.  Staff Code is unique in R365 |
| Staff Name\* | Search as you type  E.g. If user searches “Harry”, “Lim”, “rry”, etc., “Harry Lim (HL)” will be shown in search as you type dropdown list.  When user enters Staff Name and hits enter key, or clicks “Harry Lim (HL)”, all other staff particulars will be auto populated according to Staff Name.  If staff is not found, meaningful error message shall be displayed. |
| Department | Auto populated according to the NRIC/FIN, Staff Code, or Staff Name.  Display “OFO/SFO”, and “Local Crew” only when “Department” is “FMD”. |
| Designation |
| Section |
| OFO / SFO |
| Date of Birth |
| Date Joined |
| Local Crew |
| Record to Monitor\* | Dropdown list Available Record to Monitor are managed by settings module |
| Reference Number | Text  This refers to SG WP No., PASSPORT NO., Seaman Book No., COE No., and GOC No., etc.  Must be encrypted in database. |
| Start Date | Format: DD/MM/YYYY |
| Validity Period | Free text Sample value “2 years”, “14 months”, etc. |
| Expiry Date | Format: DD/MM/YYYY  User may not define expiry date.  If expiry date is empty, when save/submit the record, please show alert message in confirmation dialogue such as “Expiry date is not specified, no reminders will be sent for this record. Are you sure to continue? [Yes][No]” for user to confirm his action. |
| Uploaded Files | Allow user to upload and remove files (excel, pdf, word etc.) |
| First Reminder Date | Auto populated according to the default configuration of the selected asset sub type in settings module  These field are editable  First Reminder Date is compulsory if Expiry Date is not empty. |
| Second Reminder Date |
| Third Reminder Date |
| TO List | TO List contains semicolon separated emails of the users who have ‘Notification TO’ access rights in the user group.  This field is non-editable. |
| CC List | CC List contains semicolon separated emails of the users who have ‘Notification CC’ access rights in the user group.  This field is non-editable. |
| Additional CC List | Text.  Email(s) separated by semicolon  (User may key in additional emails (of active users) as cc recipients)  Support search as you type feature when key in an email.  (Search from emails of active Users) |
| Remarks | Text |
| Active\* | Radio Button: Yes(Default)/No |

\*Mandatory field

Other fields might be identified and need to be captured for staff reminder details in future without affecting the existing workflow.

### View Staff Monitor Record

This feature shall allow authorized user to view staff monitor record details in his or her user group. All the fields mentioned in “Create Staff Monitor Record” section will be viewable. Following fields will also be displayed.

|  |  |
| --- | --- |
| **Fields to be entered** | **Remarks** |
| Uploaded Files | Allow user to **download** uploaded files. |
| Created By | Text |
| Created Date | DD/MM/YYYY HH:MM:SS |
| Last Modified | Text |
| Last Modified Date | DD/MM/YYYY HH:MM:SS |
| Status | N.A. / Expiring / Expired  (\*N.A. means out of notification period. Or use other meaningful name for “N.A.”) |

### Update Staff Monitor Record

This feature shall allow authorized user to update staff monitor record details in his or her user group. All the fields (expect for User Group) mentioned in “Create Staff Monitor Record” section will be editable. Following fields will also be displayed.

|  |  |
| --- | --- |
| **Fields to be entered** | **Remarks** |
| Uploaded Files | Allow user to upload, download, and remove files. |
| Created By | Text |
| Created Date | DD/MM/YYYY HH:MM:SS |
| Last Modified | Text |
| Last Modified Date | DD/MM/YYYY HH:MM:SS |

### Delete Staff Monitor Record

This feature shall allow authorized user to delete staff monitor record in his or her user group.

### Renew Staff Monitor Record

This feature shall allow authorized user to create new staff monitor record using existing staff monitor record details in R365. User can select any existing staff monitor record and click renew button to renew it. After clicking renew button, user will be redirected to create staff monitor record page. Following details will be copied from the original staff monitor record.

|  |
| --- |
| **Fields to be copied from original record** |
| User Group |
| NRIC/FIN |
| Staff Code |
| Staff Name |
| Record to Monitor |
| Reference Number |
| Additional CC List |
| Remarks |

TO List and CC List will be auto populated according to group role settings. Staff particulars will be auto populated according to the NRIC/FIN, Staff Code and Staff Name. Record will be “Active” by Default.

After user submits the renewal request, system will prompt user to delete, inactivate, or do nothing to the original staff reminder.

### View Expiry Calendar

In staff reminder home page, a calendar of current month will be displayed on the top of the page. Expiry date(s) of all the active staff monitor record(s) in the login user’s group(s) will be highlighted in red on the calendar. If user clicks a date on expiry calendar, active staff monitor record(s) expiring on that date will be shown in search result.

### View Staff Monitor Record Summary

In staff reminder home page, following summary statistics of staff monitor records under login user’s group(s) will be shown. If user clicks the summary box, corresponding staff monitor record list will be shown in search results.

1. No. of Staff Monitor Records Expired
   * Display the number of active staff monitor records that already expired.
2. No. of Staff Monitor Records Expiring This Month
   * Display the number of active staff monitor records expiring this month.
3. No. of Staff Monitor Records Expiring Next Month
   * Display the number of active staff monitor records expiring next month.

### Search Staff Monitor Record

This feature shall allow authorized user to search staff monitor records of his or her user group(s) via any field displayed in the staff monitor record list. The search via keywords function will be enhanced by search as you type feature (results fulfilling searching key will be shown in dropdown list).

|  |  |
| --- | --- |
| * + Search Key | * + Remarks |
| * + Record to Monitor | * + Search as you type against all Record Types |
| * + Reference No. | * + Text   Support wildcard search |
| * + NRIC/FIN | * + Text   + Support wildcard search |
| * + Staff Code | * + Search as you type against Staff Codes available in user’s group(s)   + Support wildcard search |
| * + Staff Name | * + Search as you type against Staff Names available in user’s group(s)   + Support wildcard search |
| * + Department | * + Dropdown list, select from options as configured in “department” table |
| * + OFO / SFO | Display this field only when “FMD” is selected in “Department”   * + Dropdown.   [OFO|SFO|All(default)] |
| * + Section | * + Dropdown. Select from all sections as configured in “section” table.   (Do a mapping between Department and Section in database. Section dropdown list should be filtered according to selected “Department” if user has selected a Department) |
| * + Local Crew | Display this field only when “FMD” is selected in “Department”   * + Dropdown.   + [Yes|No|All(default)] |
| * + Expiry Date From | * + Select from calendar |
| * + Expiry Date To | * + Select from calendar |
| * + User Group | * + Dropdown.   + Select from a list of user’s group(s) |
| * + Active | * + Dropdown.   + [Yes(default)|No|All] |
| * + Status | * + Dropdown.   + [Expiring|Expired|Out of Notification Period |All(default)] |

The following default fields shall be shown in the list of staff reminder search records: -

* + Record to Monitor
  + Staff Code
  + Staff Name
  + Local Crew
  + Expiry Date
  + User Group
  + Reminder
  + Status

However, there will be an option for user to choose additional fields to be displayed, or hide existing fields in the list. If “NRIC/FIN” is selected for display, only the last 5 characters of “NRIC/FIN” shall be displayed in result list. (e.g. XXXX9941D). If “Reference No.” is selected for display, only the last 5 characters of “Reference No.” shall be displayed in result list. (xxxx1234)

If a grid or table cell is too small to display the full content, only partial information will be shown. However full content will be displayed in a tooltip whenever user mouse over on that field.

If column(s) has been sorted, the search result should displayed according to the sorted column(s)

By default, 20 staff monitor records will be shown in one search result page. There will be an option for user to configure the number of reminders to be shown in one result page.

Color code shall be displayed properly on individual record to indicate staff monitor record status as Expired (red), Expiring (orange) or Outside Reminder Notice Periods (green)

### Sort Staff Monitor Record

This feature shall allow authorized user to sort staff monitor records in search result by any column in the result list. By default, staff monitor records will be sorted by expiry date in descending order.

### Download Staff Monitor Record

This feature shall allow authorized user to download staff monitor records search results in to an excel sheet (NRIC/FIN, and Reference No. shall be downloaded in plain text). All relevant and meaningful information of the staff monitor record details will be downloaded.

## Settings Module

Settings module shall allow users to manage a list of static values and default reminder setting for contract, staff and asset modules.

Whenever a setting is submitted for creation, update, or deletion, R365 shall prompt up a confirmation dialogue asking user to confirm his or her action.

Whenever setting is created, updated, or deleted, R365 shall display a confirmation message saying that this setting is created, updated, or deleted successfully or unsuccessfully.

### Contract Reminder Module

#### Setup Default First, Second and Third Reminder Period

Overall Group Administrator shall be able to set the default first, second and third reminder periods for contract reminder module. When user updates the expiry date in Add Contract or Update Contract page, the first, second, and third reminder dates will be auto calculated according to the default first, second and third reminder periods of contract reminder module. User shall be able to edit the first, second and third reminder dates of this contract record in Add Contract or Update Contract page.

For example, default reminder periods of contract reminder module are set as following:

|  |  |  |
| --- | --- | --- |
| First Reminder | Second Reminder | Third Reminder |
| 45 days | 30 days | 15 days |

When user updates the Expiry Date as “20/12/2019” in Add Contract or Update Contract page, first, second, and third reminder dates will be updated as following:

|  |  |  |
| --- | --- | --- |
| First Reminder Date | Second Reminder Date | Third Reminder Date |
| 05/11/2019 | 20/11/2019 | 05/12/2019 |

User shall be able to update first, second and third reminder dates of this contract record in Add Contract or Update Contract page.

### Asset Reminder Module

#### Setup Asset Types and Asset Sub Types

Overall Group Administrator shall be able to create, update, delete, search and sort asset types and asset sub types for Asset Reminder Module. Active asset types and asset sub types shall appear in the dropdown list of “Asset Type” and “Asset Sub Type” in Add Asset and Update Asset pages.

Search asset type and asset sub types:

|  |  |
| --- | --- |
| * + Search Key | * + Remarks |
| * + Asset Type | * + Search as you type against all asset types |
| * + Asset Sub Type | * + Search as you type against all asset sub types   + (If user selected asset type, asset sub types should be filtered by selected Asset Type).   + Support wildcard search. |
| * + Active | * + Select from [Yes|No|All] |

Refer to Appendix “Sample Asset Types and Asset Sub Types” for example.

#### Setup Locations

Overall Group Administrator shall be able to create, update, delete, search and sort locations for Asset Reminder Module. Active locations shall appear in the “search as you type” dropdown list of “Location” in Add Asset and Update Asset pages

Refer to Appendix “Sample Asset Locations” for example.

#### Setup Default First, Second, and Third Reminder Period

Overall Group Administrator shall be able to set the default first, second and third reminder periods of each asset sub type for asset reminder module. When user updates the expiry date in Add Asset or Update Asset page, the first, second, and third reminder dates will be auto calculated according to the default first, second and third reminder periods of the selected asset sub type. User shall be able to edit the first, second and third reminder dates of this asset record in Add Asset or Update Asset page.

For example, default reminder periods of asset sub type “Load Line Cert” (under “Statutory Certificates” asset type) are set as following:

Asset Sub Type: Load Line Cert

|  |  |  |
| --- | --- | --- |
| First Reminder | Second Reminder | Third Reminder |
| 45 days | 30 days | 15 days |

When user updates the Expiry Date as “20/12/2019” in Add Asset or Update Asset page, first, second, and third reminder dates will be updated as following

|  |  |  |
| --- | --- | --- |
| First Reminder Date | Second Reminder Date | Third Reminder Date |
| 05/11/2019 | 20/11/2019 | 05/12/2019 |

User shall be able to update first, second and third reminder dates of this asset record in Add Asset or Update Asset page.

### Staff Reminder Module

#### Setup Record to Monitor Types

Overall Group Administrator shall be able to create, update, delete, search and sort record types for Staff Reminder Module. Active record types shall appear in the dropdown list of “Record to Monitor” in Add Staff and Update Staff pages.

Refer to Appendix “Sample Record to Monitor Types” for example.

#### Setup Staff Particulars

**Group Administrator** shall be able to view, search and sort **all** staff particulars in R365, and create, update, delete staff particulars if the staff and the group administrator are from a same “Department”. Active staff particulars will be retrieved and auto populated in Add Staff Monitor Record and Update Staff Monitor Record pages.

Following fields shall be available in create staff particulars page

|  |  |
| --- | --- |
| **Fields** | **Remarks** |
| NRIC/FIN\* | Text  Must be encrypted in database. |
| Staff Code\* | Text |
| Staff Name\* | Text |
| Department | Dropdown list, select from options as configured in “department” table |
| OFO / SFO | Display this field only when “FMD” is selected in “Department”  Dropdown list, select from “OFO”, “SFO” |
| Designation | Text |
| Section | Dropdown list  Available sections will be filtered according to the selected “Department”, the mapping between department and section dropdown list shall be configurable in database.  Sample sections: “TUG”, “WATERBOAT” and “LAUNCH” |
| Date of Birth | DD/MM/YYYY,  Must be encrypted in database. |
| Date Joined | DD/MM/YYYY |
| Local Crew | Display this field only when “FMD” is selected in “Department”  Select from “Yes”, “No” |
| Active | Select from Yes (Default) / No |
| Created By | Text |
| Created Date | DD/MM/YYYY HH:MM:SS |
| Last Modified | Text |
| Last Modified Date | DD/MM/YYYY HH:MM:SS |

\*Mandatory field

Besides the above fields, following fields shall also be show in view and update staff particulars page.

|  |  |
| --- | --- |
| **Fields** | **Remarks** |
| Created By | Text |
| Created Date | DD/MM/YYYY HH:MM:SS |
| Last Modified | Text |
| Last Modified Date | DD/MM/YYYY HH:MM:SS |

This feature shall allow Group Administrator to search staff particulars of his or her user group(s) via any field displayed in the staff particulars list. The search via keywords function will be enhanced by search as you type feature (results fulfilling searching key will be shown in dropdown list).

|  |  |
| --- | --- |
| * + Search Key | * + Remarks |
| * + NRIC/FIN\* | * + Text   + Support wildcard search |
| * + Staff Code\* | * + Search as you type against Staff Codes available in R365   + Support wildcard search |
| * + Staff Name\* | * + Search as you type against Staff Names available in R365   Support wildcard search |
| * + Department | * + Dropdown list, select from options as configured in “department” table. |
| * + OFO / SFO | Display this field only when “FMD” is selected in “Department”   * + Dropdown.   [OFO|SFO|All(default)] |
| * + Section | * + Dropdown. Select from all sections as configured in “section” table.   + (Available sections will be filtered according to the selected “Department”, the mapping between department and section dropdown list shall be configurable in database) |
| * + Local Crew | Display this field only when “FMD” is selected in “Department”   * + Dropdown.   + [Yes|No|All(default)] |
| * + User Group | * + Dropdown.   + Select from a list of groups whose group administrator is the login user |
| * + Active | * + Dropdown.   + [Yes(default)|No|All] |

lwss wn listf Name/Staff Infiguration:t) The following default fields shall be shown in the list of staff particulars:

* + NRIC/FIN (Only the last 4 digit shall be displayed in result list. (xxxx1234))
  + Staff Code
  + Staff Name
  + OFO / SFO
  + Department
  + Section
  + Local Crew
  + User Group
  + Active

#### Setup Default First, Second, and Third Reminder Period

Overall Group Administrator shall be able to set the default first, second and third reminder periods of each record type for staff reminder module. When user updates the expiry date in Add Staff or Update Staff page, the first, second, and third reminder dates will be auto calculated according to the default first, second and third reminder period of selected record type. User shall be able to edit the first, second and third reminder dates of this staff monitor record in Add Staff or Update Staff page.

For example, default reminder periods of record type “Employment Pass” are set as following:

|  |  |  |
| --- | --- | --- |
| First Reminder | Second Reminder | Third Reminder |
| 45 days | 30 days | 15 days |

When user updates the Expiry Date as “20/12/2019” in Add Staff or Update Staff page, first, second, and third reminder dates will be updated as following:

|  |  |  |
| --- | --- | --- |
| First Reminder Date | Second Reminder Date | Third Reminder Date |
| 05/11/2019 | 20/11/2019 | 05/12/2019 |

User shall be able to update first, second and third reminder dates of this staff monitor record in Add Staff Monitor Record or Update Staff Monitor Record page.

## Notifications Module

### Reminder Workflow

This feature describes how the reminder notifications are sent for each contract, asset, or staff monitor records. There will be up to 3 reminders configured for every record, i.e. First Reminder Date, Second Reminder Date and Third Reminder Date.

On the respective first, second and third reminder date, notification email will be sent to following recipients:

* 1. TO List:
     1. Email of Officer in Charge of this contract (for contract reminder module only)
     2. Email of the users in the group who have “Notification TO” access right

(When send email notification, an email address can only be included in email TO list once)

* 1. CC List:
     1. Emails configured in Additional CC List of the record
     2. Email of the users in the group who have “Notification CC” access right

(When send email notification, an email address can only be included in email CC list once)

Email engine will be run on daily basis and trigger email when the following conditions are matched:

1. Record is Active, 1rd Reminder is not sent and 1rd Reminder Date <= Current Date, or
2. Record is Active, 2rd Reminder is not sent and 2rd Reminder Date <= Current Date, or
3. Record is Active, 3rd Reminder is not sent and 3rd Reminder Date <= Current Date, or
4. Record is Active, Expiry Reminder is not sent and Expiry Date <= Current Date, or

User will be able to view the reminders status from every record as a quick snapshot. There will be up to 3 bell icons displaying on the “Reminder” column of every record to indicate how many reminders have been sent. The number of default (grey) bell icons will be same the number of reminder dates configured. If first reminder has been sent, the first bell icon will be highlighted as red. If the second reminder has been sent, the first two bell icons will be highlighted as red. If the third reminder has been sent, all the three bell icons will be highlighted as red.

## Dashboard Module

Dashboard is the landing page after user login R365 successfully, and shall provide a snapshot of the expiring contract, staff, and asset records which are accessible by the login user.

### View Expiring Summary by Module

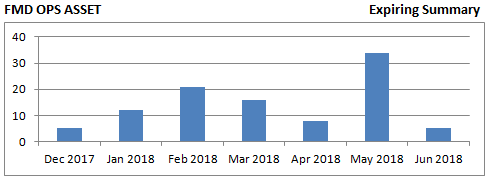
At the top of dashboard page, there will be summary boxes showing “Expiring by Next Month” summary of each reminder module. “Expiring by Next Month” will be shown as “<the number of active records which are accessible by the login user, and will expire between current date and the end of next month> out of < the number of active records which are accessible by the login user, and not yet expired>”. Upon clicking the summary box, user shall be redirected to the result list filtered by “Expiring by Next Month” of respective reminder module.

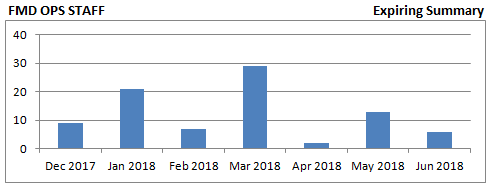
If the login user has no access to a particular module, the summary box of that module will not be shown.

### View Expiring Summary by User Group

Below the summary boxes, there will be expiring summary of the group(s) of login user. For each user group that is accessible by the login user, there will be a histogram showing the summary of records that will expiry from current month to 6th month in future.

For example, if login user is a user in “FMD OPS ASSET” and “FMD OPS STAFF” group, and current month is Dec 2017, then two histograms will be shown in the login user’s dashboard (illustrated as below).





Upon clicking the individual histogram bar, user shall be redirected to the corresponding result list filtered by selected month.

### View Expiry Calendar

A calendar of current month will be displayed on the right hand side of the dashboard. Expiry date(s) of all the active record(s) in the login user’s group(s) will be highlighted in red on the calendar.

# Performance

Refer to Technical Requirement Design Specification (TRDS) Document

# Interface Requirements

# Operational Requirements

## Logging Requirements

### Database Log

Whenever any record (e.g. contract, asset, staff monitor records, user, group, role, etc) is created, updated, or deleted in database, either from R365 by users or from database by IT admin, a new entry will be added in the audit table to keep track of the changes. By looking at the audit table, IT admin shall be able to know the record details before and after the transaction, and who has made what transaction at what time.

### Application Log

Every transaction performed by users shall be logged in application log. By looking at the application log, IT admin shall be able to know who has made what transaction at what time. System errors and exceptions shall be logged properly to facilitate future investigation.

10.2. Housekeeping requirement

All records shall be available in production database for six months. Thereafter it will be housekeep.

All records shall be archived in a daily basis. The user shall be able to view the archived records via reporting utility. The archived records will be permanently deleted after 2 years.

# Security/Control Requirements

Refer to Security/Control Documents.

# Documentation Requirements

a) User's manuals

To updated with new screens and procedures

b) User acceptance document

To be provided by users

c) Error reporting procedure

Via JIRA

# User Training Requirements

Training session will be provided before system rollout. Detailed schedule will be provided after UAT.

# Output Requirements

Non-Applicable

# Paging Requirements

Non-Applicable

# User acceptance criteria

System shall be accepted if it satisfies the functional specifications stated in this document and upon the successful User Acceptance testing and sign off by the user.

# Appendix

## Sample Asset Locations

|  |
| --- |
| **Location - TS** |
| TS Store |
| TS Launch |

|  |  |  |  |
| --- | --- | --- | --- |
| **Location - Craft** | | | |
| CS01 - Reliant | GP50 - GP50 | TG36 - Noble Knight | TG78 - Star Ruby |
| CS02 - Radiant | GP51 - GP51 | TG37 - Sterling (S) | TG80 - Star Opal |
| GP01 - GP01 | GP52 - GP52 | TG38 - Star Explorer | TG81 - Star Admiral |
| GP02 - GP02 | GP53 - GP53 | TG39 - Star Voyager | TG83 - Star Titan |
| GP26 - GP26 | GP54 - GP54 | TG40 - Noble Jade | TG88 - Star Commodore |
| GP27 - GP27 | GP55 - GP55 | TG41 - Noble Ace | WB09 - Ayer Manis |
| GP28 - GP28 | GP56 - GP56 | TG42 - Noble Pearl | WB10 - Ayer Molek |
| GP29 - GP29 | GP57 - GP57 | TG43 - Noble Atlas | WB11 - Ayer Cherdas |
| GP30 - GP30 | GP58 - GP58 | TG44 - Noble Vega | WB12 - Ayer Cherdek |
| GP31 - GP31 | GP59 - GP59 | TG45 - Noble Jewel | WB13 - Ayer Chomel |
| GP32 - GP32 | GP60 - GP60 | TG46 - Noble Orion |  |
| GP33 - GP33 | GP61 - GP61 | TG47 - Noble Pride |  |
| GP42 - GP42 | NN01 - Righteous | TG48 - Noble Valour |  |
| GP43 - GP43 | NN03 - Resilient | TG49 - Noble Reliance |  |
| GP44 - GP44 | TG16 - Skilful | TG72 - Sea Cheetah |  |
| GP45 - GP45 | TG17 - Splendor | TG73 - Sea Cougar |  |
| GP46 - GP46 | TG30 - Noble Guard | TG74 - Star Endeavour |  |
| GP47 - GP47 | TG31 - Noble Star (M) | TG75 - Star Discovery |  |
| GP48 - GP48 | TG33 - Noble Synergy | TG76 - Star Diamond |  |
| GP49 - GP49 | TG34 - Noble Scout | TG77 - Star Aries |  |

## Sample Asset Types and Asset Sub Types

|  |  |
| --- | --- |
| **Asset Type** | **Sub Asset Type** |
| Statutory Certificates | Load Line Cert. |
| Safety Construction Cert. |
| Safety Equipment Cert. |
| Safety Radio Cert. |
| I.O.P.P |
| Deratting Certificate |
| Druggist Certificate |
| IDA |
| Others |
| Classification Survey | Class Renewal Survey |
| Others |
| Life-saving Apparatus | Life raft |
| Life raft HRU |
| Hand flares |
| Parachute flares |
| Smoke Signal |
| EPIRB |
| EPIRB HRU |
| SART |
| MOB Light & smoke signal |
| Line throwing apparatus |
| Portable VHF GMDSS Spare battery |
| Others |
| Fire-fighting Equipment | Fire extinguishers |
| Breathing Apparatus |
| CO2 installation (2 year) |
| CO2 installation (5 year) |
| EEBD |
| Others |
| Webbing Sling | 5 Ton-3M |
| 5 Ton-5M |
| 3 Ton-1M |
| 3 Ton-2M |
| 3 Ton-3M |
| 2 Ton-1M |
| 2 Ton-2M |
| 2 Ton-3M |
| 1 Ton-1M |
| 1 Ton-2M |
| 1 Ton-3M |
| Others |
| Chain Blocks | 1/2 Ton |
| 1 Ton |
| 1 1/2 Ton |
| 2 Ton |
| 500KG |
| 340KG |
| 280KG |
| 220KG |
| 150KG |
| Others |
| LIFTING SPREADER BAR | N.A. |
| STEEL WIRE ROPE | N.A. |
| CHAIN BLOCK | N.A. |
| LEVER HOIST | N.A. |
| Air Compressor | N.A. |
| FIXED CRANE-PILLAR CRANE | N.A. |
| Lifting gear | N.A. |
| Others | N.A. |

## Sample Record to Monitor Types

|  |
| --- |
| **Record to Monitor** |
| Work Pass |
| Employment Pass |
| Registered Safety Officer (WSHO) |
| Shipyard Safety Instructions for Workers (General/Hot-work trade) |
| Shipyard Safety Instructions for Workers (General trade) |
| Lifting Supervisor – Safety Instruction Course |
| Trained Signalman Course |
| Rigger Course |
| Certified Occupational First Aiders |
| Certified in CPR + AED |
| Safety Orientation Course for Workers (Manhole) |
| Perform Work In Confined Space Operation |
| STCW2010 |
| ISC Tug Master Refresher Course (Indon Crew) |
| Birthday |
| Others |

## Sample User Group

|  |
| --- |
| **User Group** |
| FMD OPS ASSET |
| FMD TS ASSET |
| FMD OPS STAFF |
| FMD TS STAFF |
| COSD HR STAFF |
| PROC HR CONTR |
| PROC IT CONTR |
| PROC FMD CONTR |